



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/889,075

09/09/2002

David G. Atkins

ATKINS1

6813

1444

7590

09/23/2005

BROWDY AND NEIMARK, P.L.L.C.

624 NINTH STREET, NW

SUITE 300

WASHINGTON, DC 20001-5303

EXAMINER

SCHULTZ, JAMES

ART UNIT

PAPER NUMBER

1635

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,075

Applicant(s)

ATKINS ET AL.

Examiner

J. D. Schultz, Ph.D.

Art Unit

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-4, and 8-19, in part, drawn to a DNAzyme which targets the GU cleavage site of nucleotides 198-199 of SEQ ID NO: 1.

Group 2, claim(s) 1-4, and 8-19, in part, drawn to a DNAzyme which targets the GU cleavage site of nucleotides 200-201 of SEQ ID NO: 1.

Group 3, claim(s) 1-4 and 8-19, in part, drawn to a DNAzyme which targets the GU cleavage site of nucleotides 264-265 of SEQ ID NO: 1.

Group 4, claim(s) 1-5, and 8-19, in part, drawn to a DNAzyme which targets the AU cleavage site of nucleotides 271-272 of SEQ ID NO: 1.

Group 5, claim(s) 1-4, and 8-19, in part, drawn to a DNAzyme which targets the AU cleavage site of nucleotides 301-302 of SEQ ID NO: 1.

Group 6, claim(s) 1-4, and 8-19, in part, drawn to a DNAzyme which targets the GU cleavage site of nucleotides 303-304 of SEQ ID NO: 1.

Group 7, claim(s) 1-4, and 8-19, in part, drawn to a DNAzyme which targets the AU cleavage site of nucleotides 316-317 of SEQ ID NO: 1.

Group 8, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 3.

Group 9, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 4.

Group 10, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 5.

Group 11, claim(s) 1-3, and 6-19, in part, drawn to a DNAzyme of SEQ ID NO: 6.

Art Unit: 1635

Group 12, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 7.

Group 13, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 8.

Group 14, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 9.

Group 15, claim(s) 1-3, 6, and 8-19, in part, drawn to a DNAzyme of SEQ ID NO: 10.

This international searching authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2, and 13.3) for the reasons indicated below:

According to the guidelines in Section (f)(i)(a) of Annex B of the PCT Administrative Instructions, the special technical feature as defined by PCT Rule 13.2 shall be considered to be met when all the alternatives of a Markush-group are of similar nature. For chemical alternatives, such as the claimed sequences, the Markush group shall be regarded as being of similar nature when

- (A) all alternatives have a common property or activity and
- (B)(1) a common structure is present, i.e, a significant structure is shared by all of the alternatives or
- (B)(2) in cases where the common structure cannot be the unifying criteria, all alternatives belong to an art recognized class of compounds in the art to which the invention pertains.

The instant sequences are considered to be each separate inventions for the following reasons:

The sequences do not meet the criteria of (B)(1), as they do not share, one with another, a significant common structure. Although each sequence contains the same art recognized catalytic core sequence, the primary contribution to the art is the flanking arms which provide the specificity of the instant DNAzymes. Furthermore at these flanking arms are each unique and contain no similarity in their structure when compared one to the other. Accordingly, unity of invention between the antisense flanking sequences is lacking and each sequence claimed is considered to constitute a special technical feature.

Art Unit: 1635

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Conclusion

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Douglas Schultz, Ph.D. whose telephone number is 571-272-0763. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached at 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

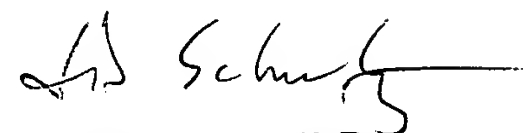
Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem

Art Unit: 1635

has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

JD Schultz, PhD

A handwritten signature in black ink, appearing to read "J.D. Schultz", with a long horizontal line extending to the right.

J.D. SCHULTZ, Ph.D.
PATENT EXAMINER